



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,370	09/19/2005	Elias Jonsson	P16694US2	2983
27045	7590	05/29/2009		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER TORRES, JUAN A	
			ART UNIT	PAPER NUMBER
			2611	
			MAIL DATE	DELIVERY MODE
			05/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,370	Applicant(s) JONSSON, ELIAS	
	Examiner JUAN A. TORRES	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

The modifications to the claims were received on 04/22/2009. These modifications are accepted by the Examiner.

In view of the amendment filed on 04/22/2009, the Examiner withdraws Claim objections to claims 1-16 of the previous Office action.

Claims 1-16 are objected to because of the following informalities:

Regarding claim 1, the recitation in line 6 of claim 1 “comprising” seems to be improper (see claim 15 line 3); it is suggested to be changed to “comprising:”

Regarding claims 2-7, 15 and 16, they are objected because they depend directly or indirectly from claim 1 and claim 1 is objected.

Regarding claim 8, the recitation in line 5 of claim 6 “comprises” seems to be improper (see claim 15 line 3); it is suggested to be changed to “comprises:”

Regarding claims 9-14, they are objected because they depend directly or indirectly from claim 8 and claim 8 is objected.

Appropriate correction is required.

Response to Arguments

Regarding claims rejections – 35 USC § 101:

Applicant's arguments filed 04/22/2009 have been fully considered but they are not persuasive.

The Applicant contends:

Art Unit: 2611

“Claims 1-7 and 15-16 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 2 has been canceled. Claim 1, from which the remaining claims depend, has been amended to overcome the Section 101 rejection”

The Examiner disagrees, and asserts that, as indicated in the previous Office action, claims 1-7 and 15-16 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Supreme Court precedent and recent Federal Circuit decisions indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

For these reasons and the reasons of the previous Office action the rejection of claims 1-7 and 15-16 are maintained.

Regarding claims rejections – 35 USC § 103(a):

Applicant's arguments filed 03/02/2009 have been fully considered but they are not persuasive.

The Applicant contends:

“The combination of Itoh, Mochizuki and Dabak do not disclose nor suggest the present invention as now claimed. The key to the present invention is that the checking of the

Art Unit: 2611

transmit power control (TPC) includes the estimation of the previous and the present power using a weighted contribution of the pilot signals and the data. The present invention provides a robust and precise SIR estimate under conditions with noise disturbed transmission channels and unknown contents of the transmitted data. The plain meaning of former claim 2, now incorporated into claim 1 (and similarly for claims 8/9) is that if the power step/TPC command is verified, then data symbols prior to the pilot slot could also be used for SIR estimation. In contrast, Dabak is directed to detecting transmit diversity and is not directed to power control. The "weighting coefficients" disclosed by Dabak are irrelevant to the objectives and features of the present invention. Note that Dabak, par. 3, lines 47-58, refers to Rayleigh fading parameters corresponding to a first antenna lead. Hence, Dabak appears directed to weighting the difference in fading due to different antennas (transmit diversity). Hence, it is not applicable to the transmit power control objectives of the present invention. Regarding the combination of these references, the Examiner states that Itoh and Dabak are analogous art because they are from the same field of endeavor of TPC in CDMA. At the time of the invention, according to the Examiner, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance. As an initial matter, the Examiner's motivation for combining is just the conclusory statement: "...to improve the performance". Such a broad generality is not sufficient under KSR International Co. v. Teleflex Inc. (KSR). KSR requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (KSR Opinion at p. 14). An Examiner must "identify a reason (not a conclusion) that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," (KSR Opinion at p. 15). And, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." (KSR Opinion at p. 14). Anything less than such an explicit analysis is not sufficient to support a prima facie case of obviousness. Based upon KSR, the Examiner has failed to show any sufficient reason for combining the references, and therefore the claims are not obvious in view of any combination of the cited references." Further, the IEEE article cited by the Examiner fails to disclose the element of determining if the TPC command has been received correctly and weighting the pilot and data symbols. It is directed to a soft symbol reliability estimation for closed loop power control. Regarding Mochizuki, it discloses: During soft handover, base station selector 22 selects the base station that is transmitting the downlink signal with the best downlink reception quality, and notifies the base stations of the ID of this base station, so as to cause only the selected base station to transmit user data. Downlink signal weight decision circuit 23 estimates base stations obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance. As an initial matter, the Examiner's motivation for combining is just the conclusory statement: "...to improve the performance". Such a broad generality is not sufficient under KSR International Co. v. Teleflex Inc. (KSR). KSR requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (KSR

Art Unit: 2611

Opinion at p. 14). An Examiner must "identify a reason (not a conclusion) that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," (KSR Opinion at p. 15). And, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." (KSR Opinion at p. 14). Anything less than such an explicit analysis is not be sufficient to support a prima facie case of obviousness. Based upon KSR, the Examiner has failed to show any sufficient reason for combining the references, and therefore the claims are not obvious in view of any combination of the cited references." Further, the IEEE article cited by the Examiner fails to disclose the element of determining if the TPC command has been received correctly and weighting the pilot and data symbols. It is directed to a soft symbol reliability estimation for closed loop power control. Regarding Mochizuki, it discloses: During soft handover, base station selector 22 selects the base station that is transmitting the downlink signal with the best downlink reception quality, and notifies the base stations of the ID of this base station, so as to cause only the selected base station to transmit user data. Downlink signal weight decision circuit 23 estimates base stations obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance. As an initial matter, the Examiner's motivation for combining is just the conclusory statement: "...to improve the performance". Such a broad generality is not sufficient under KSR International Co. v. Teleflex Inc. (KSR). KSR requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (KSR Opinion at p. 14). An Examiner must "identify a reason (not a conclusion) that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," (KSR Opinion at p. 15). And, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." (KSR Opinion at p. 14). Anything less than such an explicit analysis is not be sufficient to support a prima facie case of obviousness. Based upon KSR, the Examiner has failed to show any sufficient reason for combining the references, and therefore the claims are not obvious in view of any combination of the cited references." Further, the IEEE article cited by the Examiner fails to disclose the element of determining if the TPC command has been received correctly and weighting the pilot and data symbols. It is directed to a soft symbol reliability estimation for closed loop power control. Regarding Mochizuki, it discloses: During soft handover, base station selector 22 selects the base station that is transmitting the downlink signal with the best downlink reception quality, and notifies the base stations of the ID of this base station, so as to cause only the selected base station to transmit user data. Downlink signal weight decision circuit 23 estimates base stations" (emphasis added)

The Examiner disagrees, and asserts that:

Regarding claim 1, Mochizuki uses the weights to take into account the quality of the channels to improve the performance of the system ("a weight W1 for the selected base station and changes weight W2, the weight set for non-selected base stations, from "0" to "1" in accordance with the quality of the uplink channel"). Its also common sense that is the quality of a channel is low the value of the measurement of that channel at that time should have less weight that the quality of a channel that at a determined time has a better quality.

The weighting in Mochizuki is for several base stations, but is could also be use for the case of the number of base stations is 1.

In the KSR case, the Court stated that in certain circumstances what is obvious to try is also obvious, such as where "there is a design need or market pressure to solve a problem, and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense." Regarding hindsight, the Court found that "[r]igid preventive rules that deny fact finders recourse to common sense . . . are neither necessary under our case law nor consistent with it." The Court stated that "familiar items may have obvious uses beyond their primary purposes," analogizing an obvious invention to the fitting together of pieces to a puzzle. The Court in this regard further stated that the person of ordinary skill is also a person of ordinary creativity, and not "an automaton.")

Grandell specifically discloses that to improve the performance of the system, the TCP command should be verified that has been correctly received "A power-up command is carried out in the MS only if all of the base stations agree in the TPC commands. However, if any of the base stations signal a power-down command, the MS will power down. The basic flaw of this approach is the handling of the TPC commands in case of bit errors. In order to enhance the feasibility of TPC in fast fading, the TPC commands must be transmitted to the MS without unnecessary delays. Therefore, contrary to traffic channel bits, TPC bits are not error protected. This may result in a significantly higher probability of bit error in the TPC subchannel. Errors in these bits make the system vulnerable, since invalid power-up or power-down commands might be received by the MS. In other words, non-ideal TPC causes the obtained Eb/No to show high peaks or low dips as a function of time. In addition, determining the reliability of the TPC command by measuring the SIR has been found to be sub-optimal. The determination of the threshold for this reliability is also critical for the overall functioning of the TPC." This is used by the Examiner to support the motivation, because at the time of the invention it was known that the verification of the TPC command was important for a correct operation of the system.

Regarding claim 8, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "estimation of the previous and the present power", "then data symbols prior to the pilot slot could also be used for SIR estimation") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

Art Unit: 2611

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

See also response to arguments regarding claim 1 in regard to KSR.

For these reasons and the reasons of the previous Office action the rejection of claims 1 and 8 are maintained.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 and 15-16 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-7 and 15-16, claims 1-7 and 15-16 are rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Supreme Court precedent¹ and recent Federal Circuit decisions² indicate that a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example the

¹ *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972);

Cochrane v. Deener, 94 U.S. 780, 787-88 (1876).

² *In re Bilski*, 88 USPQ 2d 1385 (Fed.Cir.2008).

Art Unit: 2611

instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 20030100267 A1) in view of Mochizuki (US 20020082038 A1).

Regarding claim 8, Itoh discloses a Transmit Power Control (TPC) means having an output signal (figure 14 block 84, paragraphs [0229]-[0230] and [0256]-[0057], [0271], [0379]-[0381]); and a means for SIR estimation, using said output signal as input signal and being arranged to estimate the SIR (figure 14 block 85, paragraphs [0229]-[0231] and [0245]-[0261], [0297]-[0302]). Itoh doesn't disclose determining if the TPC command has been received correctly and weighting the pilot and data symbols. Mochizuki discloses determining if the TPC command has been received correctly (paragraph [0150], specifically Mochizuki discloses " the correlations indicated by signals S8, S9 and S10 indicate which of the base stations have correctly received the TPC command") and weighting the pilot and data symbols (figures 5, 7 and 8, specifically discloses "adjustment circuit 38 looks at signals S8, S9 and S10 input from correlators 34, 35 and 36, and at signal S3 indicative of the base station selected by

Art Unit: 2611

base station selector 22; decides, in accordance with the degree of likelihood with which the base stations transmit downlink data, the weight to be applied to each base station; and inputs these weights to downlink reception quality measuring circuit 24 and data demodulator 27 as signals S12, S13 and S14. For example, when applying weights, adjustment circuit 38 sets a weight of "1" for the base station that has been selected by base station selector 22. Adjustment circuit 38 also sets a weight of "1" for a base station that has not been selected if its uplink channel quality is below a prescribed threshold, and sets a weight of "0" for a non-selected base station if its uplink channel quality is equal to or above the threshold. Alternatively, as shown in FIG. 5, adjustment circuit 38 sets a weight W1 for the selected base station and changes weight W2, the weight set for non-selected base stations, from "0" to "1" in accordance with the quality of the uplink channel" and paragraphs [0179] and [0186]). Itoh and Dabak are analogous art because they are from the same field of endeavor of TPC in CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance by taking into account if the TCP has been correctly received (Mochizuki paragraphs [0150] and [0179], to support Examiner rejection see also Grandell ("Closed-loop power control algorithms in soft handover for WCDMA systems", IEEE International Conference on Communications, 2001, ICC 2001 Volume 3, 11-14 June 2001 Page(s):791 - 795 vol.3) page 792 third paragraph left column).

Art Unit: 2611

Regarding claim 11, Itoh and Mochizuki disclose claim 1, Itoh also discloses that that interference is estimated from said pilot symbols (paragraphs [0192], [0211]).

Regarding claim 12, Itoh, Mochizuki and Dabak disclose claim 4, Itoh also discloses that the estimated interference is filtered (figure 14 block 86, averaging paragraphs [0280], [0296], [0300]-[0306], [0323]-[0324]. See Applicant also specification page 2 lines 23-25).

Regarding claim 13, Itoh, Mochizuki and Dabak disclose claim 1, Itoh also discloses that the first unit is a base station and the second unit is a mobile unit (abstract).

Regarding claim 14, Itoh, Mochizuki and Dabak disclose claim 1, Itoh also discloses that the first unit is a mobile unit and the second unit is a base station (abstract).

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh in view of Mochizuki as applied to claim 8 above and further in view of Dabak (US 6804311 B1)

Regarding claim 10, Itoh and Mochizuki disclose claim 8, Itoh and Mochizuki don't disclose encoding said data symbols using space-time transit diversity (STTD). Dabak discloses encoding said data symbols using space-time transit diversity (STTD) (figures 1-4 column 2 lines 2-44). Itoh and Mochizuki and Dabak are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh and Mochizuki the weighting disclosed by

Art Unit: 2611

Dabak. The suggestion/motivation for doing so would have been to improve the performance (column 1 lines 62-64).

Claims 1, 3-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 20030100267 A1) in view of Mochizuki (US 20020082038 A1), and further in view of Dabak (US 6804311 B1)

Regarding claims 1 and 15, Itoh discloses a transmitted Transmit Power Control (TPC) command (figure 14 block 84, paragraphs [0229]-[0230] and [0256]-[0057], [0271], [0379]-[0381]), and giving a SIR estimation depending on the result of said TPC (figure 14 block 85, paragraphs [0229]-[0231] and [0245]-[0261], [0297]-[0302]). Itoh doesn't disclose determining if the TPC command has been received correctly and weighting the pilot and data symbols, comprising taking into account power changes in said data symbols due to prior TPC changes. Mochizuki discloses determining if the TPC command has been received correctly (paragraph [0150], see discussion above and rejection of claim 8) and weighting the pilot and data symbols (figures 5, 7 and 8, see discussion above and rejection of claim 8 and paragraphs [0179] and [0186]). Itoh and Dabak are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance by taking into account if the TCP has been correctly received (Mochizuki paragraphs [0150],[0179], to support Examiner rejection see also Grandell ("Closed-loop power control algorithms in soft handover for WCDMA systems",

Art Unit: 2611

IEEE International Conference on Communications, 2001, ICC 2001 Volume 3, 11-14 June 2001 Page(s):791 - 795 vol.3) page 792 third paragraph left column). Dabak discloses taking into account power changes in said data symbols due to prior TPC changes (abstract, figure 5 column 4 line 49-65). Itoh and Mochizuki and Dabak are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh and Mochizuki the weighting disclosed by Dabak. The suggestion/motivation for doing so would have been to improve the performance taking into account averaging data.

Regarding claim 3, Itoh and Mochizuki and Dabak disclose claim 1, Dabak also discloses encoding said data symbols using space-time transit diversity (STTD) (figures 1-4 column 2 lines 2-44). Itoh and Mochizuki and Dabak are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh and Mochizuki the weighting disclosed by Dabak. The suggestion/motivation for doing so would have been to improve the performance (column 1 lines 62-64).

Regarding claim 4, Itoh, Mochizuki and Dabak disclose claim 1, Itoh also discloses that that interference is estimated from said pilot symbols (paragraphs [0192], [0211]).

Regarding claim 5, Itoh, Mochizuki and Dabak disclose claim 4, Itoh also discloses that the estimated interference is filtered (figure 14 block 86, averaging

Art Unit: 2611

paragraphs [0280], [0296], [0300]-[0306], [0323]-[0324]. See Applicant also specification page 2 lines 23-25).

Regarding claim 6, Itoh, Mochizuki and Dabak disclose claim 1, Itoh also discloses that the first unit is a base station and the second unit is a mobile unit (abstract).

Regarding claim 7, Itoh, Mochizuki and Dabak disclose claim 1, Itoh also discloses that the first unit is a mobile unit and the second unit is a base station (abstract).

Claims 1, 4-7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 20030100267 A1) in view of Mochizuki (US 20020082038 A1), and further in view of Young-Shin Yoon, "Adaptive SIR estimation in WCDMA systems", IEEE 55th Vehicular Technology Conference, 2002, VTC Spring 2002. Volume 1, 6-9 May 2002 Page(s):275 - 279 vol.1)

Regarding claims 1 and 15, Itoh discloses a transmitted Transmit Power Control (TPC) command (figure 14 block 84, paragraphs [0229]-[0230] and [0256]-[0057], [0271], [0379]-[0381]), and giving a SIR estimation depending on the result of said TPC (figure 14 block 85, paragraphs [0229]-[0231] and [0245]-[0261], [0297]-[0302]). Itoh doesn't disclose determining if the TPC command has been received correctly and weighting the pilot and data symbols, comprising taking into account power changes in said data symbols due to prior TPC changes. Mochizuki discloses determining if the TPC command has been received correctly (paragraph [0150], see discussion above and rejection of claim 8) and weighting the pilot and data symbols (figures 5, 7 and 8,

Art Unit: 2611

see discussion above and rejection of claim 8 and paragraphs [0179] and [0186]). Itoh and Dabak are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh the determination and weighting disclosed by Mochizuki. The suggestion/motivation for doing so would have been to improve the performance by taking into account if the TCP has been correctly received (Mochizuki paragraphs [0150],[0179], to support Examiner rejection see also Grandell ("Closed-loop power control algorithms in soft handover for WCDMA systems", IEEE International Conference on Communications, 2001, ICC 2001 Volume 3, 11-14 June 2001 Page(s):791 - 795 vol.3) page 792 third paragraph left column). Young-Shin Yoon discloses taking into account power changes in said data symbols due to prior TPC changes (abstract, section 3 figures 2 and 3). Itoh and Mochizuki and Young-Shin Yoon are analogous art because they are from the same field of endeavor of CDMA. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to incorporate in the system disclosed by Itoh and Mochizuki the weighting disclosed by Young-Shin Yoon. The suggestion/motivation for doing so would have been to improve the performance (Young-Shin Yoon abstract).

Regarding claim 4, Itoh, Mochizuki and Young-Shin Yoon disclose claim 1, Itoh also discloses that that interference is estimated from said pilot symbols (paragraphs [0192], [0211]).

Regarding claim 5, Itoh, Mochizuki and Young-Shin Yoon disclose claim 4, Itoh also discloses that the estimated interference is filtered (figure 14 block 86, averaging

Art Unit: 2611

paragraphs [0280], [0296], [0300]-[0306], [0323]-[0324]. See Applicant also specification page 2 lines 23-25).

Regarding claim 6, Itoh, Mochizuki and Young-Shin Yoon disclose claim 1, Itoh also discloses that the first unit is a base station and the second unit is a mobile unit (abstract).

Regarding claim 7, Itoh, Mochizuki and Young-Shin Yoon disclose claim 1, Itoh also discloses that the first unit is a mobile unit and the second unit is a base station (abstract).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

Art Unit: 2611

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
05/22/2009

/Juan A Torres/
Primary Examiner, Art Unit 2611